IN THE CLAIMS

Please add a page break, after the paragraph on page 13, lines 14-21.

Please change the heading on page 13 before the claims as follows:

CLAIMS~~Patent claims:~~

What is claimed is:

1. (Currently amended) A p~~P~~rocess for the packet-oriented transmission of security-relevant data ~~(11, 11b, 12, 12b), in particular~~ under application of at least one transmission system with ~~comprising~~ a parallel and/or serial network and/or bus system with at least one user connected to it, the process, comprising:

transmitting the security-relevant data and redundant information based on the security-relevant data, ~~where in addition to the security-relevant data (11, 11b, 12, 12b) a redundant information based on the data (21, 21b) is transmitted,~~

wherein ~~characterized in that~~ the security-relevant data ~~(11, 11b, 12, 12b)~~ and the redundant information ~~based on this data (21, 21b)~~ are~~is~~ transmitted in different packets ~~(1, 1b, 2, 2b)~~.

2. (Currently amended) The p~~P~~rocess according to c~~C~~laim 1, wherein~~characterized in that~~ the redundant information ~~(21, 21b)~~ is encoded.

3. (Currently amended) The p~~P~~rocess according to c~~C~~laim 1, wherein~~or 2 characterized in that~~ the redundant

information ~~(21, 21b)~~ is a check sum (CRC) calculated over the security-relevant data.

4. (Currently amended) The p~~P~~rocess according to c~~C~~laim 1, wherein~~, 2 or 3 characterized in that~~ the security-relevant data is selected from the group consisting of~~comprise~~ user data ~~(11, 11b)~~, check data, ~~(12, 12b)~~ and~~/or~~ control data.

5. (Currently amended) The p~~P~~rocess according to claim 1, further comprising transmitting~~one of the Claims 1 through 4 characterized in that~~ several packets ~~(1, 1b, 2, 2b) are transmitted~~ within a predefined (superset) frame structure.

6. (Currently amended) The p~~P~~rocess according to claim 5, wherein~~one of the Claims 1 through 5 characterized in that~~ the packets within a predefined (superset) frame structure) include~~comprise~~ the security-relevant data ~~(11, 11b, 12, 12b)~~ and the redundant information ~~(21, 21b)~~ that are allocated to each other.

7. (Currently amended) The p~~P~~rocess according to claim 6, wherein~~one of the Claims 1 through 6 characterized in that~~ the packets ~~(1, 1b, 2, 2b)~~ with the security-relevant data ~~(11, 11b, 12, 12b)~~ and the redundant information ~~(21, 21b)~~ that are allocated to each other are transmitted in a parallel or serial way.

8. (Currently amended) The p~~P~~rocess according to claim 6, wherein~~one of the Claims 1 through 7 characterized in that~~ the packets ~~(1, 1b, 2, 2b)~~ with the security-relevant data and the redundant information that are allocated to each other are transmitted in strings or

separately.

9. (Currently amended) The pProcess according to claim 1, whereinone of the Claims 1 through 8 characterized in that the packets include(1, 1b, 2, 2b) comprise an addressing block and/or an identification code for their logical allocation.

10. (Currently amended) A dDevice, in particular for a transmission system with at least one parallel and/or serial network and/or bus system, for the packet-oriented transmission of security-relevant data (11, 11b, 12, 12b), comprising:

means, --arranged on the side of the sender,-- for the packet-oriented embedding of the security-relevant data (11, 11b, 12, 12b) and the allocated redundant information (21, 21b) into different packets (1, 1b, 2, 2b).

11. (Currently amended) The dDevice according to cClaim 10, further comprisingcharacterized by an encoding device for the encoding of the redundant information (21, 21b).

12. (Currently amended) The dDevice according to cClaim 10 whereinor 11 characterized in that the means for embedding are allocated means for the generation of the redundant information (21, 21b) with the same number of bits (n) as the security-relevant data (11, 11b, 12, 12b) to be transmitted.

13. (Currently amended) The dDevice according to cClaim 10 wherein,11 or 12 characterized in that the means for the generation and/or embedding are designed such that any possible combination of the security-oriented data

~~(11, 11b, 12, 12b)~~ of a packet ~~(1, 1b)~~ unambiguously results in exactly one of the possible combinations with the allocated redundant information ~~(21, 21b)~~ within the packet ~~(2, 2b)~~.

14. (Currently amended) The d~~D~~evice~~, in particular for a transmission system with at least one parallel and/or serial network and/or bus system, for the packet-oriented transmission of security-relevant data (11, 11b, 12, 12b), in particular~~ according to claim 10, further comprising~~one of the Claims 10 through 13 characterized by~~ means arranged on the side of the receiver for the verification of an error-free data transmission based on the security-relevant data ~~(11, 11b, 12, 12b)~~ and the allocated redundant information ~~(21, 21b)~~ embedded in different packets ~~(1, 1b, 2, 2b)~~.

15. (Currently amended) The d~~D~~evice according to c~~C~~laim 14 wherein~~characterized in that~~ the means for the verification are allocated means for reading out and allocating security-relevant data ~~(11, 11b, 12, 12b)~~ and allocated redundant information ~~(21, 21b)~~ received in different packets.

16. (Currently amended) The d~~D~~evice according to claim 10, wherein~~one of the Claims 10 through 15 characterized in that~~ several packets ~~(1, 1b, 2, 2b)~~ with the security-relevant data ~~(11, 11b, 12, 12b)~~ and/or the allocated redundant information are capable of being ~~(21, 21b) can be~~ transmitted within a predefined (superset) frame structure.

17. (Currently amended) The d~~D~~evice according to claim 10, further comprising ~~one of the Claims 10 through 16~~

~~characterized by~~ means for the packet-oriented embedding and readout of addressing blocks and/or identification codes for the logical allocation of individual packets ~~(1, 1b, 2, 2b)~~ and/or their contents ~~(11, 11b, 12, 12b, 21, 21b)~~ to each other.

18. (Currently amended) The d~~D~~evice according to claim 10, wherein~~one of the Claims 10 through 17 characterized in that~~ the means are allocated to slave devices and/or a master device.

19. (Currently amended) A t~~T~~ransmission system comprising:~~with~~

at least one parallel and/or serial ~~-~~network and/or bus system; and ~~with~~

at least one device according to claim 10~~one of the Claims 10 through 18~~.

20. (Currently amended) The t~~T~~ransmission system according to c~~C~~laim 19, wherein the network and/or bus system ~~there~~ is at least one ring-, line-, star- and/or tree-shaped network and/or bus structure.

21. (Currently amended) The t~~T~~ransmission system according to c~~C~~laim 19, wherein the network and/or bus system is~~or 20 comprising~~ at least one selected from the group consisting of Interbus, one Ethernet, one Profibus, and~~/or~~ one CAN.

22. (Currently amended) Use of a transmission system according to claim 19~~Claim 19, 20 or 21~~ in a~~the~~ field~~s~~ selected from the group consisting of building control technology, process industry, manufacturing industry,

passenger transportation, and~~/or for the~~ operation of an automation plant.